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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,436	11/08/2001	Kazushi Satoh	SON-2266	5263

7590 07/28/2004

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EXAMINER

WONG, ALLEN C

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,436

Applicant(s)

SATOH ET AL.

Examiner

Allen Wong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G., 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,15-17 and 30 is/are rejected.
- 7) ☒ Claim(s) 3-14 and 18-29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 15-17 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Panusopone (6,647,061).

Regarding claims 1 and 16, Panusopone discloses an image information conversion method and apparatus which receives first image compression information as an input thereto and outputs second image compression information, each of the first image compression information and the second image compression information including at least intra-image coded pictures and inter-image prediction coded pictures (fig.3-5, note MPEG-2 bitstream data is converted to MPEG-4 bitstream data), comprising:

quantization scale determination means for using information extracted from the first image compression information to determine an initial value for a

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reference quantization scale to be used for production of an intra-image coded picture of the second image compression information and determining an initial value for a virtual buffer occupation amount for an intra-image coded picture based on the initial value for the reference quantization scale to be used for production of the first intra-image coded picture of the second image compression information (col.13, ln.40-54; Panusopone discloses the quantization is changed for the I-frame or intra-coded VOP, so an initial reference quantization value is calculated, and also see fig.4, and note that at element 308, the quantization scale, from the MPEG-2 header, is fed through the quantization lookup table to obtain a reference quantization scale to produce an intra-coded image of the second image compression information as evidence by the output of element 308, an MPEG-4 header, and that the MPEG-4 header data with the initial value for a reference quantization scale is also fed into the inverse quantization 330 and as well as the quantization 340 for production of the first intra-image coded picture of the second image compression information or the MPEG-4 information).

Regarding claims 15 and 30, Panusopone discloses wherein the first image compression information is MPEG2 image compression information standardized by the Moving Picture Experts Group, and the second image compression information is MPEG4 image compression information (see title, abstract and col.8, ln.18-21).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Panusopone (6,647,061) in view of Ramaswamy (6,480,539).

6. Regarding claims 2 and 17, Panusopone discloses an image information conversion apparatus and method (figs.3-5). Panusopone does not specifically disclose wherein the information extracted from the first image compression information is an average quantization scale of the first intra-image coded picture of the first image compression information. However, Ramaswamy teaches wherein the information extracted from the first image compression information is an average quantization scale of the first intra-image coded picture of the first image compression information (col.11, ln.64-67; note Q_i is the average quantization scale of the I-frame or the intra-coded image). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Panusopone and Ramaswamy, as a whole, for accurate, efficient video encoding in a precise, seamless manner (col.22, ln.45-54).

Allowable Subject Matter

7. Claims 3-14 and 18-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not specifically disclose wherein the initial value for the reference quantization scale to be used for production of the first intra-image coded picture of the second image compression information is determined by operation of the product of a ratio of a code amount of the first image compression information to a code amount of the second image compression information, a ratio of a frame rate of the second image compression information to a frame rate of the first image compression information, and the average quantization scale of the first intra-image coded picture of the first image compression information, as disclosed in claims 3 and 18.

Further, the prior art does not specifically disclose wherein the initial value for the reference quantization scale for the first intra-image coded picture of the second image compression information is determined by operation of the product of a ratio of the code amount allocated to the first intra-image coded picture of the first image compression information to a target code amount for the first intra-image coded picture of the second image compression information, a ratio of the number of predetermined coding units included in one frame of the second image compression information to the number of predetermined coding

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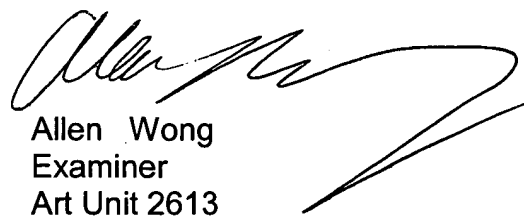
units included in one frame of the first image compression information, and an average quantization scale of the first intra-image coded pictures of the first image compression information, as disclosed in claims 7 and 22.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Allen Wong
Examiner
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